

PATENT
Attorney Docket No. 208859

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Roelvink et al.

Group Art Unit: Unknown

Application No. unassigned

Examiner: Unknown

Filing Date: February 9, 2001

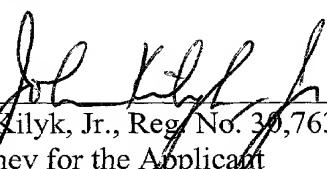
For: **ADENOVIRAL CAPSID CONTAINING
CHIMERIC PROTEIN IX**

SUBMISSION OF SEQUENCE LISTING

In accordance with the requirements of 37 CFR 1.821-1.825, a nucleotide/amino acid sequence listing is submitted as part of the new patent application identified above. A sequence listing in written form (paper copy), with pages numbered separately from the pages of the application, is enclosed. A sequence listing in a computer readable version (diskette) that is identical to the sequence listing in written form is also enclosed. The undersigned agent verifies that the paper copy of the sequence listing and the computer readable version of the sequence listing are identical.

Respectfully submitted,

By


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Date: February 9, 2001

SEQUENCE LISTING

<110> Roelvink, Petrus W
Kovesdi, Imre
Wickham, Thomas J

<120> ADENOVIRAL CAPSID CONTAINING CHIMERIC PROTEIN IX

<130> 208859

<140> US

<141> 2001-02-09

<150> US 60/181,163

<151> 2000-02-09

<160> 13

<170> PatentIn Ver. 2.1

<210> 1

<211> 144

<212> PRT

<213> Adenovirus

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Phe Ser Pro Tyr Leu Thr Ser Arg Leu Pro Tyr Trp Ala Gly Val Arg
20 25 30

Gln Asn Val Val Gly Ser Thr Val Asp Gly Arg Pro Val Ala Pro Ala
35 40 45

Asn Ser Ser Thr Leu Thr Tyr Ala Thr Ile Gly Pro Ser Pro Leu Asp
50 55 60

Thr Ala Ala Ala Ala Ala Ser Ala Ala Ala Ser Thr Ala Arg Ser
65 70 75 80

Met Ala Ala Asp Phe Ser Phe Tyr Asn His Leu Ala Ser Asn Ala Val
85 90 95

Thr Arg Thr Ala Val Arg Glu Asp Ile Leu Thr Val Met Leu Ala Lys
100 105 110

Leu Glu Thr Leu Thr Ala Gln Leu Glu Glu Leu Ser Gln Lys Val Glu
115 120 125

Glu Leu Ala Asp Ala Thr Thr His Thr Pro Ala Gln Pro Val Thr Gln
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<210> 2

<211> 125

<212> PRT

<213> Adenovirus

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20									25						

Gly	Gly	Val	Val	Leu	Pro	Pro	Asn	Ser	Gln	Ala	His	Arg	Thr	Glu	Thr
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35							40								

Val	Gly	Thr	Glu	Ala	Thr	Arg	Asp	Asn	Leu	His	Ala	Glu	Gly	Ala	Arg
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Arg	Pro	Glu	Asp	Gln	Thr	Pro	Tyr	Met	Ile	Leu	Val	Glu	Asp	Ser	Leu
															80
65						70			75						

Gly	Gly	Leu	Lys	Arg	Arg	Met	Asp	Leu	Leu	Glu	Glu	Ser	Asn	Gln	Gln
															95
85								90							

Leu	Leu	Ala	Thr	Leu	Asn	Arg	Leu	Arg	Thr	Gly	Leu	Ala	Ala	Tyr	Val
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100								105							

Gln	Ala	Asn	Leu	Val	Gly	Gly	Gln	Val	Asn	Pro	Phe	Val			
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115							120								

<210> 3

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<212> PRT

<213> Adenovirus

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Pro	Lys	Trp	Ser	Gly	Ser	Val	Gln	Asp	Lys	Thr	Gly	Ser	Asn	Met	Leu
															30
20								25							

Gly	Gly	Val	Val	Leu	Pro	Pro	Asn	Ser	Gln	Ala	His	Arg	Thr	Glu	Thr
															45
35							40								

Val	Gly	Thr	Glu	Ala	Thr	Arg	Asp	Asn	Leu	His	Ala	Glu	Gly	Ala	Arg
															60
50						55			60						

Arg	Pro	Glu	Asp	Gln	Thr	Pro	Tyr	Met	Ile	Leu	Val	Glu	Asp	Ser	Leu
															80
65						70			75						

Gly	Gly	Leu	Lys	Arg	Arg	Met	Asp	Leu	Leu	Glu	Glu	Ser	Asn	Gln	Gln
															95
85								90							

Leu	Leu	Ala	Thr	Leu	Asn	Arg	Leu	Arg	Thr	Gly	Leu	Ala	Ala	Tyr	Val
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Gln Ala Asn Leu Val Gly Gly Gln Val Asn Pro Phe Val
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<210> 4

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<212> PRT

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Thr Arg Met Pro Pro Trp Ala Gly Val Arg Gln Asn Val Met Gly Ser
 20 25 30

Ser Ile Asp Gly Arg Pro Val Leu Pro Ala Asn Ser Thr Thr Leu Thr
 35 40 45

Tyr Glu Thr Val Ser Gly Thr Pro Leu Glu Thr Ala Ala Ser Ala Ala
 50 55 60

Ala Ser Ala Ala Ala Ala Thr Ala Arg Gly Ile Val Thr Asp Phe Ala
 65 70 75 80

Phe Leu Ser Pro Leu Ala Ser Ser Ala Ala Ser Arg Ser Ser Ala Arg
 85 90 95

Asp Asp Lys Leu Thr Ala Leu Leu Ala Gln Leu Asp Ser Leu Thr Arg
 100 105 110

Glu Leu Asn Val Val Ser Gln Gln Leu Leu Asp Leu Arg Gln Gln Val
 115 120 125

Ser Ala Leu Lys Ala Ser Ser Pro Pro Asn Ala Val
 130 135 140

<210> 5

<211> 140

<212> PRT

<213> Adenovirus

<400> 5

Met Ser Thr Asn Ser Phe Asp Gly Ser Ile Val Ser Ser Tyr Leu Thr
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Thr Arg Met Pro Pro Trp Ala Gly Val Arg Gln Asn Val Met Gly Ser
 20 25 30

Ser Ile Asp Gly Arg Pro Val Leu Pro Ala Asn Ser Thr Thr Leu Thr
 35 40 45

Tyr Glu Thr Val Ser Gly Thr Pro Leu Glu Thr Ala Ala Ser Ala Ala
 50 55 60

Ala Ser Ala Ala Ala Ala Thr Ala Arg Gly Ile Val Thr Asp Phe Ala
 65 70 75 80

Phe Leu Ser Pro Leu Ala Ser Ser Ala Ala Ser Arg Ser Ser Ala Arg
85 90 95

Asp Asp Lys Leu Thr Ala Leu Leu Ala Gln Leu Asp Ser Leu Thr Arg
100 105 110

Glu Leu Asn Val Val Ser Gln Gln Leu Leu Asp Leu Arg Gln Gln Val
 115 120 125

Ser Ala Leu Lys Ala Ser Ser Pro Pro Pro Asn Ala Val
130 135 140

<210> 6
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<213> Adenovirus

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Phe Ser Pro Tyr Leu Thr Thr Arg Leu Pro Ser Trp Ala Gly Val Arg
20 25 30

Gln Asn Val Val Gly Ser Asn Val Asp Gly Arg Pro Val Ala Pro Ala
 35 40 45

Asn	Ser	Thr	Thr	Leu	Thr	Tyr	Ala	Thr	Ile	Gly	Ser	Ser	Val	Asp	Thr
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Ala Ala Ala Ala Ala Ala Ser Ala Ala Ala Ser Thr Ala Arg Gly Met
65 70 75 80

Ala Ala Asp Phe Gly Leu Tyr Asn Gln Leu Ala Ala Ser Arg Leu Arg
85 90 95

Glu Glu Asp Ala Leu Ser Val Val Leu Thr Arg Leu Glu Glu Leu Ser
100 105 110

Gln Gln Leu Gln Asp Met Ser Ala Lys Met Ala Leu Leu Asn Pro Pro
115 120 125

Ala Asn Thr Ser
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<210> 7
<211> 133

<213> Adenovirus

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Phe Ser Pro Tyr Leu Thr Thr Arg Leu Pro Ala Trp Ala Gly Val Arg
20 25 30

Gln Asn Val Met Gly Ser Asn Val Asp Gly Arg Pro Val Ala Pro Ala
 35 40 45

Asn Ser Ala Thr Leu Thr Tyr Ala Thr Val Gly Ser Ser Val Asp Thr
 50 55 60

Ala Ala Ala Ala Ala Ala Ser Ala Ala Ala Ser Thr Ala Arg Gly Met
 65 70 75 80

Ala Ala Asp Phe Gly Leu Tyr Asn Gln Leu Ala Ala Ser Arg Ser Leu
 85 90 95

Arg Glu Glu Asp Ala Leu Ser Val Val Leu Thr Arg Met Glu Glu Leu
 100 105 110

Ser Gln Gln Leu Gln Asp Leu Phe Ala Lys Val Ala Leu Leu Asn Pro
 115 120 125

Pro Ala Asn Ala Ser
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<210> 8

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<212> PRT

<213> Adenovirus

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 20 25 30

Asn Xaa Asp Gly Arg Pro Val Leu Pro Ala Asn Ser Xaa Thr Leu Thr
 35 40 45

Tyr Glu Thr Val Gly Xaa Xaa Xaa Xaa Thr Ala Ala Ala Ala Ala
 50 55 60

Ser Ala Ala Ala Xaa Thr Ala Arg Gly Xaa Xaa Xaa Asp Phe Xaa Xaa
 65 70 75 80

Xaa Xaa Xaa Leu Ala Xaa Ser Xaa Xaa Xaa Arg Xaa Xaa Xaa Xaa Glu
 85 90 95

Asp Xaa Leu Xaa Xaa Leu Leu Ala Xaa Leu Xaa Xaa Leu Xaa Xaa Xaa
 100 105 110

Leu Xaa Xaa Xaa Ser Gln Xaa Xaa Leu Xaa Xaa Xaa Xaa Pro Xaa Asn
 115 120 125

Xaa Val
 130

<210> 9

<211> 130

<212> PRT

<213> Adenovirus

<400> 9

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Thr	Arg	Leu	Pro	Lys	Trp	Ala	Gly	Val	Arg	Gln	Asn	Val	Met	Gly	Ser
															30
20								25							

Asn	Val	Asp	Gly	Arg	Pro	Val	Leu	Pro	Ala	Asn	Ser	Thr	Thr	Leu	Thr
															45
35								40							

Tyr	Glu	Thr	Val	Gly	Gly	Ser	Leu	Asp	Thr	Ala	Ala	Ala	Ala	Ala	Ala
50						55									60

Ser	Ala	Ala	Ala	Ser	Thr	Ala	Arg	Gly	Met	Ala	Ala	Asp	Phe	Gly	Phe
															80
65						70				75					

Tyr	Asn	Leu	Leu	Ala	Ser	Ser	Ala	Gly	Gly	Arg	Ser	Ser	Ala	Arg	Glu
															95
85									90						

Asp	Ala	Leu	Thr	Val	Leu	Leu	Ala	Thr	Leu	Glu	Ser	Leu	Thr	Thr	Gln
															110
100								105							

Leu	Ala	Ala	Val	Ser	Gln	Ala	Ala	Leu	Val	Gly	Gly	Ser	Pro	Pro	Asn
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Ala Val

130

<210> 10

<211> 498

<212> DNA

<213> Adenovirus

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acaacgcgca	tgcggccatg	ggccgggggtg	cgtcagaatg	tgatgggctc	cagcattgtat	180
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gtgactgact	ttgtttccct	gagcccgctt	gcaagcgttg	cagcttcccg	ttcatccgccc	360
cgcgatgaca	agttgacggc	tctttggca	caattggatt	cttgaccccg	gaaacttaat	420
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<211> 165

<212> PRT

<213> Adenovirus

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Gly Ser Ile Val Ser Ser Tyr Leu Thr Thr Arg Met Pro Pro Trp Ala
 35 40 45

Gly Val Arg Gln Asn Val Met Gly Ser Ser Ile Asp Gly Arg Pro Val
 50 55 60

Leu Pro Ala Asn Ser Thr Thr Leu Thr Tyr Glu Thr Val Ser Gly Thr
 65 70 75 80

Pro Leu Glu Thr Ala Ala Ser Ala Ala Ala Ser Ala Ala Ala Ala Thr
 85 90 95

Ala Arg Gly Ile Val Thr Asp Phe Ala Phe Leu Ser Pro Leu Ala Ser
 100 105 110

Ser Ala Ala Ser Arg Ser Ser Ala Arg Asp Asp Lys Leu Thr Ala Leu
 115 120 125

Leu Ala Gln Leu Asp Ser Leu Thr Arg Glu Leu Asn Val Val Ser Gln
 130 135 140

Gln Leu Leu Asp Leu Arg Gln Gln Val Ser Ala Leu Lys Ala Ser Ser
 145 150 155 160

Pro Pro Asn Ala Val
 165

<210> 12

<211> 495

<212> DNA

<213> Adenovirus

<400> 12

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 ctgttggatc tgcgcccagca ggtttctgcc ctgaaggctt cctcccccctcc caatgcgggtt 420
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<210> 13

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<212> PRT

<213> Adenovirus

<400> 13

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Thr Arg Met Pro Pro Trp Ala Gly Val Arg Gln Asn Val Met Gly Ser
 20 25 30

Ser Ile Asp Gly Arg Pro Val Leu Pro Ala Asn Ser Thr Thr Leu Thr
35 40 45

Tyr Glu Thr Val Ser Gly Thr Pro Leu Glu Thr Ala Ala Ser Ala Ala
50 55 60

Ala Ser Ala Ala Ala Ala Thr Ala Arg Gly Ile Val Thr Asp Phe Ala
65 70 75 80

Phe Leu Ser Pro Leu Ala Ser Ser Ala Ala Ser Arg Ser Ser Ala Arg
85 90 95

Asp Asp Lys Leu Thr Ala Leu Leu Ala Gln Leu Asp Ser Leu Thr Arg
100 105 110

Glu Leu Asn Val Val Ser Gln Gln Leu Leu Asp Leu Arg Gln Gln Val
115 120 125

Ser Ala Leu Lys Ala Ser Ser Pro Pro Asn Ala Val Ser Ser Gly Ser
130 135 140

Gly Ser Gly Ser Gly Ser Gly Ser Tyr Pro Tyr Asp Val Pro
145 150 155 160

Asp Tyr Ala Ser Arg
165